

D Betriebsanleitung Bandsäge

ENG Operating Instructions for Band Saw

BAS 500 WNB



D DEUTSCH**KONFORMITÄTSERKLÄRUNG**

Wir erklären in alleiniger Verantwortlichkeit, daß dieses Produkt mit den folgenden Normen übereinstimmt* gemäß den Bestimmungen der Richtlinien**

EG-Baumusterprüfung *** durchgeführt von ****

F FRANÇAIS**DECLARATION DE CONFORMITE**

Nous déclarons, sous notre seule responsabilité, que ce produit est en conformité avec les normes ou documents normatifs suivants* en vertu des dispositions des directives **

Contrôle européen du modèle type *** effectué par ****

IT ITALIANO**DICHIARAZIONE DI CONFORMITÀ**

Noi dichiariamo sotto la nostra esclusiva responsabilità che il presente prodotto è conforme alle seguenti norme* in conformità con le disposizioni delle normative ** Omologazione CE *** eseguita da ****

PT PORTUGUÊS**DECLARAÇÃO DE CONFORMIDADE**

Declaramos sob nossa responsabilidade que este produto está de acordo com as seguintes normas* de acordo com as directrizes dos regulamentos ** controle de amostra de Construção da CE *** efectuado por ****

FIN SUOMI**VAATIMUKSEN MUKAISUUSVAKUUTUS**

Vakuutamme, että tämä tuote vastaa seuraavia normeja* on direktiivien määräysten mukainen**

EY-tyyppitarkastustesti *** testin suorittaja: ****

DA DANSK**OVERENSSTEMMELSEATTEST**

Hermed erklærer vi på eget ansvar, at dette produkt stemmer overens ed følgende standarder* iht bestemmelserne i direktiverne** EF-typekontrol *** gennemført af ****

EL ΕΛΛΗΝΙΚΑ**ΔΗΛΩΣΗ ΑΝΤΙΣΤΟΙΧΙΑΣ**

Δηλώνουμε με ίδια ευθύνη ότι το προϊόν αυτό αντιστοιχεί στις ακόλουθες προδιαγραφές*

σύμφωνα με τις διατάξεις των οδηγιών**

Έλεγχος-ΕΟΚ δομικού πρωτοτύπου*** πραγματοποιούμενος από το****

ENG ENGLISH**DECLARATION OF CONFORMITY**

We herewith declare in our sole responsibility that this product complies with the following standards*

in accordance with the regulations of the undermentioned Directives**
EC type examination *** conducted by ****

NL NEDERLANDS**CONFORMITEITSVERKLARING**

Wij verklaren als enige verantwoordelijke, dat dit product in overeenstemming is met de volgende normen*

conform de bepalingen van de richtlijnen** EG-typeonderzoek *** uitgevoerd door ****

ES ESPAÑOL**DECLARACION DE CONFORMIDAD**

Declaramos bajo nuestra exclusiva responsabilidad, que el presente producto cumple con las siguientes normas* de acuerdo a lo dispuesto en las directrices** Homologación de tipo CE *** llevada a cabo por ****

SV SVENSKA**FÖRSÄKRAN OM ÖVERENSSTÄMMELSE**

Vi försäkrar på eget ansvar att denna produkt överensstämmer med följande standarder* enligt bestämmelserna i direktiven**

EG-materialprovning *** genomfört av ****

NO NORGE**SAMSVAR SERKLÆRING**

Vi erklærer under eget ansvar at dette produkt samsvarer med følgende normer* henhold til bestemmelserne i direktiv**

EU-typegodkjennelse *** utstilt av ****

POL POLSKI**OŚWIADCZENIE O ZGODNOŚCI**

Oświadczamy z pełną odpowiedzialnością, że niniejszy produkt odpowiada wymogom następujących norm* według ustalonych wytycznych** Kontrola wzorców UE *** przeprowadzone przez ****

HU MAGYAR**MEGEGYZŐSÉGI NYILATKOZAT**

Kizárólagos felelősségünk tudatában ezennel igazoljuk, hogy ez a termék kielégíti az alábbi szabványokban lefektetett követelményeket*

megfelel az alábbi irányelvek előírásainak**

által végzett vizsgálat szerint megegyezik az alábbi építési mintapéldánnyal *** a ****

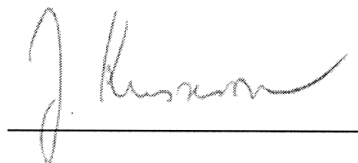
BAS 500 WNB - BAS 500 DNB

* EN 60204 - 1; DIN EN 294; EN 55014; EN 55104; EN 60555 - 2/3

** 89/392/EWG, 89/366/EWG. 73/23/EWG

*** 9311203

**** TÜV-Rheinland, Postfach 910351, D-51101 Köln



Jürgen Kusserow

Vorstand



GENERAL SAFETY INFORMATION

As with all power tools there is a certain amount of hazard involved with the operator and his use of the machine. Using the machine with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. If, however, normal safety precautions are overlooked or completely ignored, personal injury to the operator can develop.

1. **FOR YOUR OWN SAFETY READ AND UNDERSTAND THIS INSTRUCTION MANUAL BEFORE OPERATING THE SAW;** Learn the saw's application and limitations as well as the specific hazards peculiar to it.
2. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewellery which may get caught in moving parts of the saw.
3. **WEAR PROTECTIVE HAIR COVERING** to contain long hair.
4. **WEAR SAFETY SHOES** with non-slip soles.
5. **WEAR SAFETY GLASSES.** Everyday glasses have only impact resistant lenses. They are no safety glasses.
6. **WEAR FACE MASK OR DUST MASK** if operation is dusty.
7. **BE ALERT** and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.
8. **KEEP WORK AREA CLEAN.** Cluttered work areas and work benches invite accidents.
9. **DO NOT USE POWER TOOLS IN DANGEROUS ENVIRONMENTS.** Do not use power tools in damp or wet locations. Do not expose power tools to rain.
10. **THE WORK AREA SHOULD BE PROPERLY LIGHTED.**
11. **A PROPER ELECTRICAL OUTLET SHOULD BE AVAILABLE** for the machine. The plug should be plugged directly into a properly grounded outlet.
12. **EXTENSION CORDS MUST HAVE AN EARTH LEAD** and all three leads must be of the correct cross section/gauge.
13. **Keep visitors** at a safe distance from the work area.
14. **KEEP CHILDREN OUT OF THE WORKPLACE.** Make workshop childproof. Use padlocks, master switches and remove starter keys to prevent any unintentional use of power tools.
15. **PERMANENTLY MOUNT YOUR BAND SAW** before performing cutting operations.
16. **KEEP GUARDS IN PLACE** and in working order.
17. **MAKE ALL ADJUSTMENTS AND SET-UPS,** such as tilting the table or adjusting the blade guards and blades guides, **WITH THE POWER OFF.**
18. **ADJUST BLADE TENSION,** upper and lower blades guides, thrust bearings and blade tracking correctly.
19. **DOORS AND BLADE GUARD** must be in place and securely fastened when performing saw operations.
20. **SECURELY LOCK ALL ADJUSTABLE PARTS** so they can not loosen while sawing. This will prevent distraction from sawing operations.
21. **PLACE THE BLADE GUARD** to within 5 mm above the material to be cut.
22. **USE THE PROPER BLADE TYPE AND SIZE** for the material being cut.
23. **ALWAYS KEEP HANDS AND FINGERS AWAY** from the saw blade, especially at the end of a cut.
24. **DO NOT OVERREACH.** Keep proper footing and balance.
25. **HOLD MATERIAL FIRMLY** and feed into the blade at a moderate speed.
26. **USE A PUSH STICK OR A PIECE OF SCRAP WOOD** to do the pushing and guiding when sawing small pieces which require the fingers to be close to the blade.
27. **DO NOT SAW STOCK** that does not have a flat surface unless a suitable support is used.
28. **ALWAYS STOP THE MACHINE** before removing scrap pieces from the table.
29. **STOP THE MACHINE** if the material is to be backed out of an uncompleted cut.
30. **WHEN SAWING CURVES,** make relief cuts to allow for removal of scrap material. This will help to prevent undue twisting or bending of the saw blade. The relief cuts are made before starting the curved cut.
31. **NEVER LEAVE A TOOL UNATTENDED.** Turn the power off and do not leave saw until it comes to a complete stop.
32. **DISCONNECT POWER.** Turn switch off and disconnect power whenever the band saw is not in use.

Disclaimer

The information contained in this manual is intended to make the owner/operator of this band saw familiar with its set-up and the setting of cutting speeds, fences and guards.

This is not a maintenance manual for servicing and repair nor does it teach the operator how to become an expert woodworker.

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1 General

The BAS 500 band saw is used for cutting wood, wood-like materials or plastic across the grain or longitudinally. Make sure that you always use a band saw suitable for the material to be cut.

In individual cases the machine can also be used to cut other materials. Written permission from the company Elektra Beckum AG (see the section below on product liability/warranty for the address) is required in such cases.

Only use the band saw in dry surroundings. Round materials may **only** be cut using a suitable supporting device.

2 Specifications

Height x Width x Depth:	2020 x 830 x 770 mm
Weight:	approx. 159 kg
Table height from floor:	945 mm
Throat capacity:	440 mm
Max. height of cut:	300 mm
Saw blade length/width:	3380/6-25 mm
Saw table:	535 x 720 mm
	tilts from 90° through 45°
Blade speeds: 50 Hz	68-176-375-967 m/min
Motor:	1.1 kW/1.5 hp 230 V / 50 / Hz 1-phase
Noise information according to DIN 45635:	
	idling under load
Sound power level:	85 dB(A) 90 dB(A)
Workplace related noise emission value:	75 dB(A) 82 dB(A)

User Responsibility

This machine will perform in conformity with the description contained in the instructions provided. This machine must be checked periodically. Defective equipment (including power cables) should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated, should be replaced immediately. Should such repair or replacement become necessary, it is recommended that such repairs are carried out by qualified persons approved by Elektra Beckum or its representatives.

This machine or any of its parts should not be altered or changed from standard specifications. The user of this machine shall have the sole responsibility for any mal-

function which results from improper use or unauthorized modification from standard specifications, faulty maintenance, damage or improper repair by anyone other than qualified persons approved by Elektra Beckum or its representatives.

Elektra Beckum reserves the right to change specifications and design without prior notice and without incurring obligation of any kind.

Equipment referred to as available or optional may be at extra cost.

3 Machine Installation

To facilitate better handling and prevent damage to projecting parts during transport, this machine is shipped partly disassembled. After unpacking the saw table, rip fence and crank handle have to be installed before the saw can be operated.

Remove wrapping and check for any visible damage which may have occurred during transport. If damage is detected notify your dealer immediately.

- Remove rip fence carrier extrusion (201) from saw table (200).
- Place table onto the upper table trunnion (85).
- Bolt to table trunnion with washers Ø 8.4 (108), spring washers Ø 8.4 (111) and hex. screws M 8 (114).
- Attach rip fence carrier extrusion (201) to the table with 4 screws (91).
- Press table insert (79) into the saw table. Use table insert with wide slot (24) only for bevel cuts.
- Insert bolt guide (90) with carriage bolt M 8x50 (101) into the rip fence carrier extrusion's T-slot.
- Place rip fence carrier (88) onto carriage bolt (101) and secure with washer Ø 8.4 (108) and wing nut M 8 (135).
- Attach rip fence extrusion (87) to rip fence carrier with 2 each carriage bolts M 6x40 (102), washers Ø 6.4 and knurled nuts M 6 (99).
- Bolt the crank handle (70) to handwheel (20) with cap screw M 5x55 (105) and a hex. flat nut M 6 (115). Counter screw with the hexagon nut so it will not loosen.

After assembly the table needs to be aligned to have the blade running through the centre of the table insert's slot.

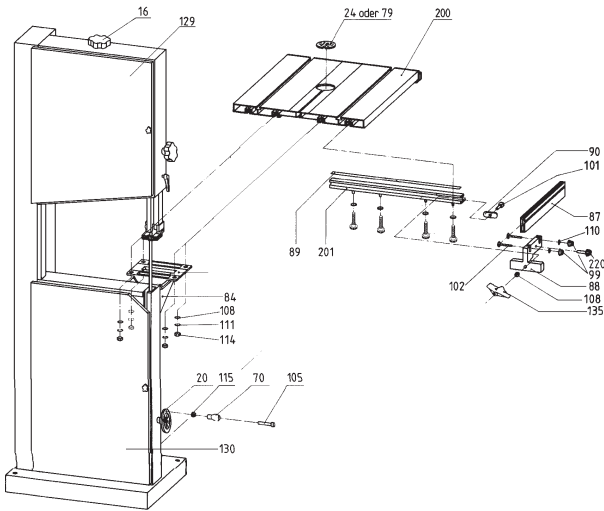
Table side alignment:

- Loosen the mounting screws of the lower table trunnion (84).
- Move table trunnion to left or right, as required.
- Tighten mounting screws, making sure the table stays in the set position.

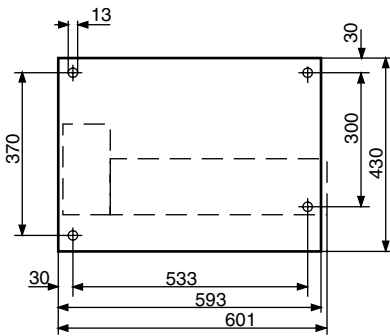
Setting table square to the blade:

- For bevel cuts the table tilts from 90° steplessly through 45°. Loosen the wing nut (135) on the table trunnion (84) to adjust the table position.
- Underneath the table a stop is installed, which rests on the saw housing when the table is in the 90° position.

- Adjust the hex. head screw of the stop to set the table exactly square with the blade.
- After the stop is adjusted, stick the rip fence scale (89) to the rip fence carrier (201).



For a firm stand and vertical stability the saw must be bolted to the floor.



Drilling pattern for anchor bolts.

For this purpose four 1/2" holes are provided in the machine's base. Locations as per drilling pattern shown above.

4 Blade Speed Selection

This band saw can be set to four different cutting speeds for best possible cutting results in different materials. The cutting speed most suitable for the material to be cut should be determined by making trial cuts in scrap material.

Depending on the type of blade used and material to be cut, the following recommendations are given:

- | | |
|--------------|---|
| a) 68 m/min | - certain low-carbon steel, gas aerated concrete blocks |
| b) 175 m/min | - NF-metals and most plastics |
| c) 375 m/min | - hardwood, certain plastics and NF-metals |
| d) 967 m/min | - all species of wood |

5 Band Saw Setup

Blade Speed Change

To change the cutting speed, the V-belts must be changed on the pulleys as shown in the table inside the lower wheel housing door.

For an easy belt change a quick-action tensioning device is provided, actuated by the handwheel (20) at the lower right hand side of the wheel housing.

Saw Blade Changing/Setting

This band saw is supplied with a general purpose woodcutting blade (stock-no. 090 902 9171), installed and set.

To change the blade start with removing the rip fence carrier (201). Then slacken the blade tension by turning the handwheel (16) on top of the machine housing counter-clockwise, open both doors and swing the blade guard out of the way. Remove blade from machine.

Install new blade and tension lightly. Turn upper band saw wheels by hand to check tracking. The blade must run in the centre of the wheels or else it may jump off. If necessary, adjust tilt of upper band saw wheel with starknob setting screw (28) at the rear of the upper wheel housing.

If a blade of different width is installed, the guide bearing of the upper blade guide and the pilot pins of the lower blade guide must be adjusted so that the teeth are just running clear of the pilot pins/guide bearings.

Blade Guiding

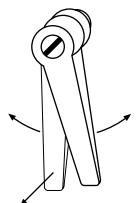
The blade guides of this band saw model BAS 500 provide for an exact guiding and lateral support of the saw blade. When using narrow blades a firm guiding by the upper blade guard is especially important. Ensure the guide bearings (21) and the thrust bearing (76) are set closely (to within 0.5 mm) against the blade.

The lower blade guide supports the back of the blade with a small thrust bearing. Loosen the knurled thumb screw (78) to adjust the thrust bearing position. Tighten the thumb screw again. Thus the blade guide keeps the blade from waving.

For wide band saw blades (from 13 mm/1/2 in.) the guide bearings should not be used as, due to increased friction, considerable heat is generated which may damage the bearings. Retract guide bearings fully to clear the blade. A wide blade is also thicker and strong enough to keep it from waving.

Cutting Height Setting

The upper blade guide should always be set as close as possible against the workpiece. To adjust, loosen the ratchet lever and set the height with the handwheel (27). Tighten ratchet lever after setting.



Ratchet lever operation:

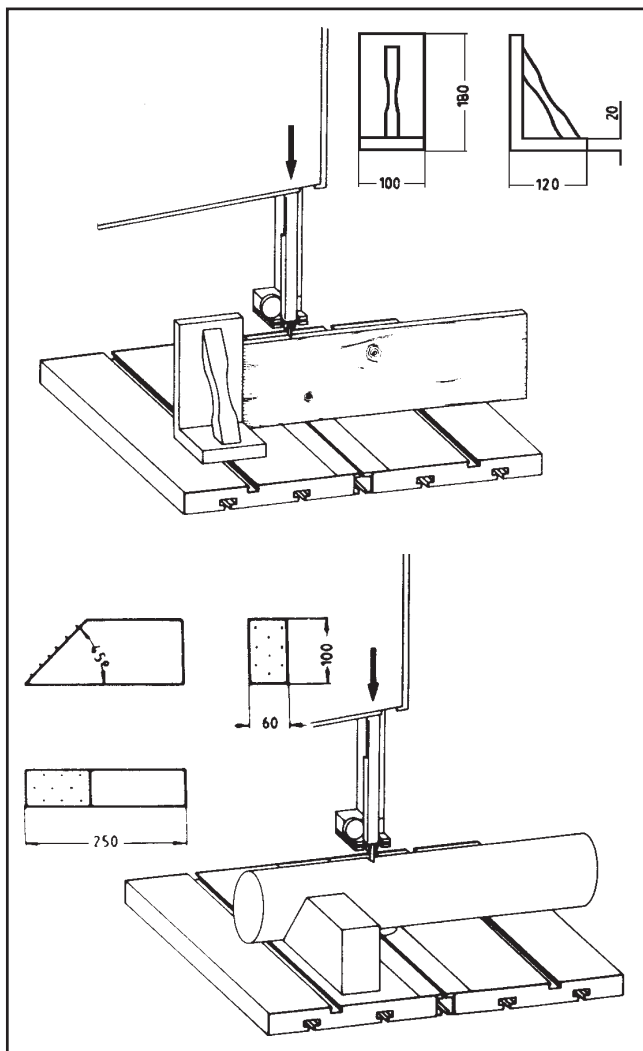
To unlock the catch pull lever, it then can swivel freely. To adjust bolt, release lever to engage catch and loosen/tighten bolt as required.

Saw Table Tilt

- For bevel cuts the table can be tilted up to 45°. Loosen the wing nut (135) of the table trunnion assembly, tilt the table to the required position and retighten the wing nut. Make trial cut in a piece of scrap wood to verify setting to desired angle.
- Hand guards:
Prior to tilting the two hand guards on the underside of the table must be moved towards the fence guide extrusion to clear the blade when the table is tilted.

6 Safety Rules

1. Always disconnect from power when changing blades or servicing the machine.
2. Before switching machine on be sure that all guards are in place and securely locked.
3. Do not use cracked or bent saw blades.
4. Replace table inserts (24/79) if slot has enlarged.
5. For cutting operations with tilted table the rip fence must be placed to the right of the blade.
6. When cutting round stock use a suitable jig to prevent the work from turning.
7. When cutting boards in an upright position use a suitable push block to prevent kickback.
8. Before tilting the table for bevel cuts replace the table insert (79) with the wide slot table insert (24).
9. For safe operation and to keep dust emission within the legal limits a dust collector with a minimum air flow rate of 20 m/s must be connected to this band saw.



7 Additional Information

For this band saw a range of optional accessories is available. Both the band saw and the accessories are only to be used for operations as described in this manual or in the instructions supplied with the accessories. Please contact your supplier or local agent if you require additional technical information.

8 Connection to Power Mains

Damaged power cables must be replaced immediately by a qualified electrician. **Risk of electric shock** if operated with a damaged power cable.

Children and juveniles should not to operate this machine. This band saw is equipped with a 1.1 kW 230 V single-phase motor. For connection to power mains the power cable is fitted with an earthed plug.

All models are equipped with an electronic brake. A light humming sound emitted from the switch for a short period after connection to power is normal and does not indicate a fault. If the brake fails have the fine-wire fuse inside the switch checked. The max. permissible number of 20 switching actuations per hour should not be exceeded.

The electrical installation must ensure that a dust collector starts up when this band saw is switched on (e.g. with an induction coil in the supply lines).

9 Optional Accessories

Circular Cutting Attachment

Stock-no. 090 903 1249

For cutting radii from 30 to 260 mm.

Belt Sanding Attachment

Stock-no. 090 903 1087

Quick and simple adaption of the belt sanding attachment to the saw. For finishing the cut edge or deburring.

Because of the many different plastics available the proper sanding belt speed must be found by testing.

Wheel Set

Stock-no. 090 900 0505

Fitting the wheel set to the machine makes the saw mobile.

Precision Blade Guide

Stock-no. 090 901 0896

- Higher precision and better performance of the saw.
- TCT guide bearing for longer service life.
- Requires no tools for setting and replacing the guide and thrust bearings.

10 Dust collection

Caution! Dust of certain wood species is carcinogenic.

→ When operating your woodworking machine indoors connect to a dust collector.

→ If a woodworking machine is operated indoors for more than 30 minutes, it is mandatory to connect it to a dust collector.

Important information to consider when choosing a dust collector:

	Unit	Min. value
Port diameter	mm	100
Mean air speed	m/s	20
Vacuum	Pa	1640
Volume flow rate	m ³ /h	565

Please note:

- The airflow at the suction port (of the woodworking machine) should not be less than 20 m/s.

Check with your dealer on the different dust collectors available from Elektra Beckum.

Caution! With extended daily use of your woodworking machine an automatic start/stop device, which automatically switches the dust collector on and off when the woodworking machine is started/stopped, is required.

This automatic power relay is available in two different versions from Elektra Beckum:

- Automatic Power Relay ALV 1 1~230 V
stock-no. 091 301 4626

11 Replacement Saw Blades

Standard delivery: blade with induction-hardened teeth for a longer tool life.



General purpose blade for straight and contour cuts, 3380x15x0.5 mm
tooth spacing A 6 mm
Stock-no. 090 902 9171



Blade for wood contour cuts
3380x6x0.5 mm
tooth spacing A 4 mm
Stock-no. 090 902 9180



Blade for straight cuts
3380x25x0.6 mm
tooth spacing A 4 mm
Stock-no. 090 900 0416



Blade for cutting fire wood
3380x25x0.6 mm
tooth spacing A 8 mm
Stock-no. 090 900 0424



Blade for NF-metals
3380x15x0.5 mm
tooth spacing A 2 mm
Stock-no. 090 902 9210



Blade for carbon steel
3380x13x0.65 mm
tooth spacing 14 teeth/inch
Stock-no. 090 902 9229

12 U.K. Supplement to Operating Instructions for Elektra Beckum Band Saw BAS 500

Please note the following supplementary information associated with this machine:

U.K. Legislation and Codes of Practice

When used industrially within the U.K. this machine falls under the scope of

- Woodworking Machines Regulations 1974 and
- Use and Provisions of Work Equipment Regulations 1992

We strongly advise you study and follow these regulations.

Section 5.0 - Connection to Power Mains

230 V motor. Although the motors supplied with this machine will run safely on a 13 A domestic ring main, on starting the machine a high current of very short duration is drawn, which could cause your 13 A fuse to blow. If this persists we recommend to have the machine connected to a 16 A separate radial circuit using BS 4343 (CEE 17) plug and socket. Ensure the installation is protected by a suitable fuse or miniature circuit breaker.

This work should be undertaken only by a qualified electrician!

Wiring Instructions

Warning: This appliance must be earthed!

If the plug, fitted to the power cable supplied with the machine, has to be changed or replaced, connect the mains lead conductors in accordance with the following colour code.

Single-phase motors (110/115/220/230/240 volts):

Yellow/green	-	Earth
Blue	-	Neutral
Brown	-	Live

Three-phase motors (220/380/400/415/440 volts):

Machines with a 3-phase motor are connected to power mains using a 5-pin industrial appliance-inlet/connector according to VDE 0623/BS 4343/IEC 309.

4-wire mains lead	Yellow/green	-	Earth
	Brown	-	Phase (L1)
	Black	-	Phase (L2)
	Blue	-	Phase (L3)

5-wire mains lead	Yellow/green	-	Earth
	Brown	-	Phase (L1)
	Black	-	Phase (L2)
	Black	-	Phase (L3)
	Blue	-	Neutral

IF IN DOUBT - CONSULT A QUALIFIED ELECTRICIAN!